

CLAIMS

1. An aluminum pigment having aluminum particles, a molybdenum coat comprising a molybdenum oxide and/or a molybdenum hydrate covering the surface of each said aluminum particle and a silica coat comprising amorphous silica and/or a coat prepared from a silane coupling agent further covering said molybdenum coat.

2. The aluminum pigment according to claim 1, wherein the content of said molybdenum is in the range of 0.01 to 5 parts by mass with respect to 100 parts by mass of said aluminum particles.

3. The aluminum pigment according to claim 1, wherein the content of silicon is in the range of 1 to 20 parts by mass with respect to 100 parts by mass of said aluminum particles.

4. The aluminum pigment according to claim 1, wherein said silane coupling agent is at least one selected from compounds having the following structure:



R_A : alkyl group or aryl group or alkenyl group, having a carbon number of 2 to 18

R_B : alkyl group having a carbon number of 1 to 3

5. A resin composition containing the aluminum pigment according to claim 1 and resin, wherein the content of said aluminum pigment is in the range of 0.1 to 30 percent by mass of overall said resin composition.

6. An aluminum pigment having aluminum particles and a silica coat comprising amorphous silica as well as a coat prepared from a silane coupling agent covering the surface of each said aluminum particle.

7. A method of manufacturing an aluminum pigment, including the steps of:
forming a molybdenum coat comprising a molybdenum oxide and/or a
molybdenum hydrate on the surface of each aluminum particle by stirring a dispersive
5 solution containing aluminum particles and a molybdenum compound; and

forming a silica coat comprising amorphous silica and/or a coat prepared from a
silane coupling agent on the surface of said molybdenum coat of each said aluminum
particle by adjusting the pH of a dispersive solution containing said aluminum particles
each having said molybdenum coat, an organic silicon compound and/or said silane
10 coupling agent and a hydrolytic catalyst thereby hydrolyzing said organic silicon
compound and/or said silane coupling agent.

8. The method of manufacturing an aluminum pigment according to claim 7,
wherein said step of forming said molybdenum coat on the surface of each said
15 aluminum particle includes the step of employing one or at least two selected from a
group consisting of peroxidic polymolybdic acid, ammonium molybdate and
phosphomolybdic acid as said molybdenum compound.

9. The method of manufacturing an aluminum pigment according to claim 7,
20 wherein said step of forming said silica coat includes the step of employing one or at
least two compounds selected from a group consisting of tetraethoxysilane and
tetramethoxysilane as said organic silicon compound.

10. The method of manufacturing an aluminum pigment according to claim 7,
25 wherein said step of forming said silica coat and/or said coat of said silane coupling
agent includes the step of employing a basic catalyst as said hydrolytic catalyst for
adjusting the pH of said dispersive solution in the range of 7.0 to 11.0.

11. The method of manufacturing an aluminum pigment according to claim 7,
wherein said step of forming said silica coat and/or said coat of said silane coupling
agent includes the step of employing one or at least two selected from a group
consisting of triethanol amine, ammonia, ethylenediamine and 3-aminopropyl
5 triethoxysilane as said hydrolytic catalyst.

12. A method of manufacturing an aluminum pigment including the steps of:
forming a molybdenum coat comprising a molybdenum oxide and/or a
molybdenum hydrate on the surface of each said aluminum particle by stirring a
10 dispersive solution containing aluminum particles and a molybdenum compound;

forming a silica coat comprising amorphous silica on the surface of said
molybdenum coat of each said aluminum particle by adjusting the pH of a dispersive
solution containing said aluminum particles each having said molybdenum coat, an
organic silicon compound and a hydrolytic catalyst thereby hydrolyzing said organic
15 silicon compound; and

forming a coat prepared from a silane coupling agent on the surface of said silica
coat of each said aluminum particle by adjusting the pH of a dispersive solution
containing said aluminum particles each having said silica coat, said silane coupling
agent and a hydrolytic catalyst thereby hydrolyzing said silane coupling agent.
20

13. A method of manufacturing an aluminum pigment including the step of
forming a silica coat comprising amorphous silica and a coat prepared from a silane
coupling agent on the surface of each aluminum particle by adjusting the pH of a
dispersive solution containing aluminum particles, an organic silicon compound, said
25 silane coupling agent and a hydrolytic catalyst thereby hydrolyzing said organic silicon
compound and said silane coupling agent.

14. A method of manufacturing an aluminum pigment, including the steps of:

forming a silica coat comprising amorphous silica on the surface of each aluminum particle by adjusting the pH of a dispersive solution containing aluminum particles, an organic silicon compound and a hydrolytic catalyst thereby hydrolyzing said organic silicon compound; and

- 5 forming a coat prepared from a silane coupling agent on the surface of said silica coat of each said aluminum particle by adjusting the pH of a dispersive solution containing said aluminum particles each having said silica coat, said silane coupling agent and a hydrolytic catalyst thereby hydrolyzing said silane coupling agent.